

Translation

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PATENT COOPERATION TREATY

PCT/CH2003/000824



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

539, 416

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 87-11.B.WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CH2003/000824	International filing date (day/month/year) 17 décembre 2003 (17.12.2003)	Priority date (day/month/year) 08 janvier 2003 (08.01.2003)
International Patent Classification (IPC) or national classification and IPC H01R 13/512, 13/502		
Applicant FISCHER CONNECTORS HOLDING SA		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>3</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 17 juin 2004 (17.06.2004)	Date of completion of this report 14 December 2004 (14.12.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-4 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1-15 _____, filed with the letter of _____ 08 November 2004 (08.11.2004)
- ☒ the drawings:
pages _____ 1/5-5/5 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims	1-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following document:

D1: US-A-4 128 292 (MOUTTET LEON) 5 December 1978
(1978-12-05)

1.1 Document **D1**, which is considered to be the prior art closest to the subject matter of claim 1, describes (the reference signs between parentheses apply to this document):

an L-shaped electrical plug including first (figure 1: 1) and second (figure 1: 2, 4) hollow cylindrical bodies (the two bodies in figure 1 of **D1** are "cylindrical" and hollow in the same sense as in the present application - see figure 1B of the present application). The first and second bodies are attached to one another at an angle. One end (figure 1: 7) of the first body (1) is sealed by a seal (figure 1: 3) and inserted into one end (figure 1: 10) of the second body (2, 4), thereby defining a continuous channel between the free ends (figure 1: 6, 9) of the two bodies (figure 1: 1, 2, 4). The first body (1) includes a contact assembly (column 2, lines 55-65).

Document **D1** does not describe, in connection with the embodiment shown in figure 1, the specific construction of the internal portions of the plug and consequently does not mention a brace for holding a releasable contact assembly in place.

It follows that the plug as per claim 1 differs from the one described in document **D1** by virtue of the following features:

F1: the plug further includes a coaxial cylindrical brace positioned in the first body in such a way that it holds a releasable contact assembly in place, which brace further comprises a recess provided in the longitudinal wall thereof, shorter than the cylindrical brace, and located on the same side as the free end of the second cylindrical body.

- 1.2 Document **D1**, which is also considered to be the prior art closest to the subject matter of claim 15, describes a semi-tubular brace (see, in particular, **D1**, column 4, lines 25-33 and figures 3 and 4: "brace" 39). This semi-tubular brace can be used for an L-shaped electrical plug as defined in claim 1, meaning that said brace is capable of being positioned in the first body (**D1**, figures 3, 4: 30) in such a way that it holds the releasable contact assembly (figures 3, 4: 37) in place. The brace (39) further comprises a recess provided in the longitudinal wall thereof (the recess in the longitudinal wall is a result of the semi-tubular shape of the part for holding the contact assembly in place). The recess in the brace of **D1** is located on the same side as the free end of the second cylindrical body (figure 4: second cylindrical body

51 and brace 39).

It follows that the brace as per claim 15 differs from the one described in document **D1** in that:

F1': the brace is cylindrical and further comprises a recess provided in the longitudinal wall thereof and shorter than the cylindrical brace.

1.3 Therefore, the subject matter of claims 1 and 15 is novel (PCT Article 33(2)).

1.4 The problem that the present invention is intended to solve can thus be considered to be that of enhancing the plug according to **D1** and a brace for supporting a contact assembly therein.

The solution to this problem, as proposed in claims 1 and 15 of the present application, is considered to involve an inventive step (PCT Article 33(3)). In **D1**, providing the opening over the entire length of the semi-tubular part does not lead to resilient flexibility in the releasable contact assembly. In other words, it does not impart longitudinal resiliency to the semi-tubular part. Conversely, the position of the recess on the brace according to the invention (feature F1') imparts longitudinal resiliency thereto. The longitudinal resiliency of the brace according to the invention enables better retention of the releasable assembly.

The selection of the shape and position of the recess according to the invention is not obvious from the teaching of **D1**. A person skilled in the art aware of this prior art document would not be prompted to alter the semi-tubular part in such a

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way as to arrive at a brace as per the invention, since the problem of "resilient" support for the releasable assembly is not addressed therein.

The other documents cited in the international search report likewise do not mention a brace having feature F1'.

2. Claims 2 to 14 are dependent on claim 1 and thus also comply, as such, with the requirements of novelty and inventive step of the PCT.
3. The subject matter of claims 1 to 15 is industrially applicable (PCT Article 33(4)).